

REMARKS

Claims 1, 4, 6, 10-16, and 39-48 were under examination as of the issuance of the present Office Action. In the Amendment to the Claims spanning pages 2 to 6 of this paper, claims 1, 4, 6, 10, 39-41 and 45-48 have been amended and new claims 49-58 have been added. Accordingly, upon entry of the amendments presented herein, claims 1, 4, 6, 10-16 and 39-58 will remain pending in this application.

Support for the foregoing claim amendments and the new claims may be found throughout the specification and originally filed claims. Specifically, support for new claims 49-58 can be found throughout the specification and in the claims as originally filed, for example, claims 25, 26 and 28-35 as originally filed.

Applicants note that new claims 49-58, corresponding to originally filed claims 25, 26 and 28-35, were subject to a Restriction Requirement as set forth in the Office Action dated December 16, 2002. It is Applicants' understanding that, once a composition claim is found to be allowable, method claims that depend from or otherwise include all the limitations of an allowable composition claim will be re-joined in accordance with the provisions of MPEP § 821.04. Accordingly, Applicants respectfully request re-joinder of new claims 49-58 should any of the pending composition claims be found to be allowable.

No new matter has been added by the foregoing claim amendments or the introduction of new claims. Any amendments to the claims have been made solely in the interest of expediting examination and in no way acquiescing to the validity of the Examiner's rejections. Applicants reserve the right to pursue the claims as originally filed in one or more further applications.

Information Disclosure Statement

Although the Examiner has indicated that references D1 and D2 cited in the PTO Form SB-08 submitted on April 18, 2006 were not initialed, Applicants note that the Examiner has, in fact, initialed the aforementioned references on the PTO Form SB-08, thereby indicating that such references were considered. Applicants believe that such statement was made in error and gratefully acknowledge the Examiner's consideration of the cited references.

Applicants note that additional references are being made of record as part of the Supplemental Information Disclosure Statement submitted concurrently herewith. Applicants respectfully request that the Examiner initial the PTO Form SB-08 accompanying the Supplemental Information Disclosure Statement and return a copy of the initialed form to Applicants to signify that the references cited therein have been considered and made of record in the present application.

Claim Objections

The Examiner has objected to claims 1, 4, 6, 39-41 and 45-48. Specifically, the Examiner is of the opinion that

[c]laims 1, 4, 6, 39-41 and 45-48 each recite ‘...or a full complement thereof’. It is suggested that this be amended to ‘...or the full complement thereof’, so as to maintain clarity that applicants claims are drawn to those molecules that are not complementary to the full length of the recited sequences.

Solely in the interest of expediting examination, Applicants have amended claims 1, 4, 6, 39-41 and 45-48 as recommended by the Examiner, *i.e.*, to recite “the full complement thereof,” thereby rendering the foregoing claim objections moot. Accordingly, Applicants respectfully request reconsideration and withdrawal of the foregoing objection of the pending claims.

Rejection of Claims 1, 4, 6, 10-16 and 39-48 Under 35 U.S.C. § 101

The Examiner has rejected claims 1, 4, 6, 10-16 and 39-48 under 35 U.S.C. § 101 as being directed “toward non-statutory subject matter.” In particular, the Examiner is of the opinion that

[i]n the absence of the hand of man, naturally occurring [gene sequences] are considered non-statutory subject matter. *Diamond v. Chakrabarty*, 206 USPQ 193 (1980). This rejection may be overcome by amending the claims to contain wording that specifies that the ‘full complement thereof’ portion of the claim is an isolated molecule. The problem found in the current claims can be illustrated more clearly by looking at claims 40, 47 and 48, which are drawn to ‘an isolated nucleic acid which encodes a polypeptide’ or ‘a full complement thereof.’ While claims 1, 4, 6, 10-16, 39, 41-46 are not as clear as claims 40, 47 and 48, they also can be interpreted in a similar fashion as encompassing non-statutory subject matter.

Applicants respectfully traverse the foregoing rejection on the grounds that the pending claims do not encompass non-statutory subject matter. The pending claims are directed to *isolated* nucleic acid molecules and “the full complement thereof.” Based on the plain language of the claims, it is evident that *the complement* of an isolated nucleic acid molecule would necessarily have to also be an isolated nucleic acid molecule. As such, Applicants submit that the pending claims read exclusively on isolated nucleic acid molecules and, thus, do not encompass non-statutory subject matter.

Moreover, as evidenced by a plethora of issued patents, the U.S. Patent and Trademark Office has repeatedly taken the position that claims similar to the pending claims do not encompass non-statutory subject matter and, thus, satisfy the requirements of 35 U.S.C. § 101. For example, Applicants direct the Examiner’s attention to U.S. Patent Nos. 6,399,859 (claims 3 and 4); 6,258,582 (claims 1-4, 9, 10, 13 and 14) 6,703,220 (claims 1 and 2) and 6,670,149 (claims 1-7), all of which contain claims directed to isolated nucleic acid molecules or the full complement thereof.

In view of all of the foregoing, Applicants respectfully submit that the pending claims satisfy the requirements of 35 U.S.C. § 101 in that they do not encompass non-statutory subject matter. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of the pending claims under 35 U.S.C. §101.

CONCLUSION

Applicants believe that the foregoing amendments and remarks render the application in condition for allowance. If a telephone conversation with Applicants' Attorney would expedite the prosecution of the above-identified application, the Examiner is urged to call the undersigned at (617) 227-7400.

The Commissioner is hereby authorized to charge any deficiency in the fees paid herewith, or credit any overpayment, to Deposit Account No. 12-0080, under Order No. BGI-130CPRCE, from which the undersigned is authorized to withdraw.

Dated: August 29, 2006

Respectfully submitted,

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